

ABSTRACT OF THE DISCLOSURE

**[0069]** According to embodiments of the present invention, a barcode scanner platform is provided in which the gain of an analog signal representative of a barcode is controlled using a control loop. In embodiments, an MTF detector generates a value (e.g., DC) representative of a low frequency portion (wide or out of optical focus elements) of the analog signal and a second value (e.g., DC) representative of a high frequency portion (narrow elements or in optical focus elements) of the analog signal. The processor uses the first and the second values and a reference amplitude to determine a gain signal. The processor provides the gain signal to an AGC circuit that provides a linear response to the gain signal using matched JFETs. A noise filter can be enabled or disabled based on the first value, the second value, and/or the barcode scanner platform read rate.